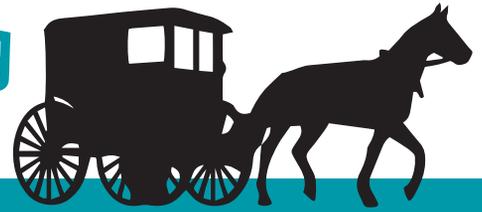


# Health Benefits of Bouncing and... Horse and Buggies?

By: Philip Legge RNC, CH, CDMT



**W**hat happens when the body is bouncing? What does gravity do when we bounce?

In the last few decades we have begun to understand the necessity of the bouncing movement for the human body. The body is made up of trillions of cells which are 70 - 75% fluid on average, and when we move gravity causes the fluid in the cells to move which changes the shape of the cell membranes. As a result, the cells can pump in nutrients, and also eliminate wastes efficiently. If we don't move, the cell membranes do not pump and change shape, and the cells cannot absorb nutrients or eliminate wastes properly.

## THE TWO MAIN BODY FUNCTIONS

The body has a program, and it is cellular based. In other words, everything that happens in the body begins in the cells. There are **two main body functions** happening at the cellular level. A person's level of health or wellness is dependent on how well these two functions work.

**1) The cells pump in**, or absorb nutrients from the bloodstream and lymph fluid through their cell membrane. The cells use these nutrients for energy to perform the duties that they are responsible for in the body.

**2) The cells pump out**, or eliminate wastes into the bloodstream and lymph fluid through their cell membrane. These waste products are the result of the cell burning, or metabolizing nutrients for energy.

A key point to understand is that **cells do not 'pump' when we are not moving**. In other words, cells only pump in and out effectively when we physically move our body. It is only when our body moves that cells pump or 'vibrate' as a result of the effect of gravity. Cells are about 70 - 75% fluid on average, so they are like microscopic 'water balloons'. When we move, the G-forces of gravity causes the cells to jiggle or vibrate, which allows them to pump in nutrients, and pump out waste products through their cell

membrane. In other words, movement helps keep the cells healthy, and being sedentary makes the cells unhealthy.

Just like a motor takes in fuel to burn for energy, each individual cell in the body takes in nutrients to burn for energy. The motor produces waste products which we call exhaust, and each cell produces waste products which include uric acid, lactic acid, and carbon dioxide, etc. If each cell gets enough movement or G-forces, it can pump in nutrients efficiently, and pump out wastes efficiently. As a result it will be healthier and can function up to its potential. If the cell doesn't get enough movement it can't absorb nutrients and eliminate wastes efficiently, and it will be less healthy and not function properly. **The health of the body as a whole is dependent on the individual cells getting enough movement so they can pump in and out effectively.** Healthy cells equal a healthier body!

Picture the cell like a balloon full of water, which you are holding in your hands. If you are standing still the balloon does not change shape. If you start walking, gravity will affect the water in the balloon, and the balloon will change shape and vibrate as the water moves back and forth. If you jump up and down the balloon will begin to flatten and elongate on a vertical plane. If you are rocking in a rocking chair, or swinging on a swing the balloon will move and stretch on a horizontal plane. Jumping on a rebounder or trampoline will create stronger G-Forces, and flatten and stretch the balloon even further. This is similar to what happens to the cell membrane when your body moves, and is essential to the health of the cell.

Another picture to help you understand the effect of gravity and movement on the cells of the body is to perform all of the same movements while holding a bottle of water. If you are standing or sitting, the water will not move. If you walk around slowly there will be a slight movement of water. If you walk briskly there will be more movement of water.

Jumping up and down will create more aggressive movement of the water. The same thing happens to the fluid in the cells when a person moves their body, and as a result the cells can absorb and eliminate properly and function up to their potential. This is essential for good health!

When the astronauts first went into space in the 1960's their bodies began to malfunction within hours because nutrients (food, air and water) were not absorbed into the cells, and the waste products were not eliminated from the cells. Even though they were eating their cells were starving. Within 48 to 72 hours the astronauts were critically ill. The cause for this was the lack of gravity in space. **Without gravity the cells do not vibrate and change shape, and therefore they cannot pump in nutrients, or pump out their waste products.** If nutrients are not absorbed, and wastes are not eliminated, the human body begins to die, and would be dead in several days. Whole body vibration devices have allowed the astronauts to stay in space for over a year by creating artificial gravity or G-Forces to promote cellular absorption and elimination. When we are sitting, standing or lying down our body starts deconditioning, because nutrients are not being absorbed by the cells, and waste products are not being eliminated by the cells. As soon as we start moving gravity takes over and the life process is enhanced.

## VIBRATION PLATFORMS

**WBV or Whole Body Vibration** has been used around the world to enhance G-Force movement for over 100 years. The Russians first developed **Whole Body Vibration** for their athletes in the late 1800's, and that was followed up by Dr. Harvey Kellogg (Chief Surgeon for the State of Michigan) at his Sanitarium in Battle Creek Michigan in the early 1900's. The American and Russian space program have utilized similar devices for the last 50 years. For the last 20 years quality Vibration Platforms have been available to the general public for

fitness, exercise and rehabilitation. The 'DKN' and 'Power Plate' brands are two of the most effective. Standing, sitting or exercising on a quality Vibration Platform will give people 20-50 bounces per second, and this is the best speed range for exercise and therapy benefits.

Some of these benefits could be achieved from skipping rope, or jumping on a trampoline or rebounder, or running, but it would take much longer. For example, most people bounce once or twice per second when skipping or jumping or running. The average speed on the Vibration Platform is 30 bounces per second. That means that one second on the platform would take 15-30 seconds of jumping or running, and one minute on the platform would take 15-30 minutes of jumping or running to give you the same total number of bounces. When we apply this ratio to a 10 minute workout on a platform, it would be the equivalent of 150-300 minutes of jumping or running, which is 2.5 to 5 hours! Another benefit is the Vibration Platform is gentler on the joints compared to skipping, running or bouncing. So whether a person relies on using a rebounder, or skipping rope, or using a Vibration Platform, **the goal is cellular pumping exercise which increases the strength and vitality of every cell in the body.**

### THE HISTORICAL PERSPECTIVE

For thousands of years humans got enough G-Force movement because of their lifestyle, up until the Industrial Revolution of the late 1800's. In the last 100 years in the Western World, machinery has taken over the workload of manual labour and walking that human beings have practiced since the beginning

of time. As machinery has replaced human labour and walking, people's bodies have begun to die prematurely. This is not because of infectious disease, but because of de-conditioning and degenerative diseases. Never before in human history have we had an epidemic of degenerative diseases like we have in the Western World today. In Third World countries, or non-industrialized countries, degenerative disease is very rare just like it was in North America and Europe 100 years ago.

### HORSE AND BUGGIES

For thousands of years horses have been used for transportation. Whether we ride on a horse, or ride in a horse-drawn vehicle such as a buggy or wagon, we will experience the G-forces of gravity because of the bouncing motion. Even today on asphalt or concrete roads there are significantly more G-forces in a horse-drawn vehicle, compared to a car or truck. Going back in history before the Industrial Revolution of the late 1800's, roads were very rough, and there was a lot more bouncing in horse-drawn vehicles than there would be today. This was very healthy for people.

### SWINGS AND ROCKING CHAIRS

It is interesting that the horizontal movement back and forth on a swing or in a rocking chair provides many of the same benefits of bouncing vertically. Going back to our illustration of holding a bottle of water, we can see a similar effect on the water in the bottle when we are on a swing or rocking in a rocking chair. This motion is ideal for the sick and the elderly who are not capable of bouncing vertically. Even babies like a gentle bouncing or rocking motion.

### SUMMARY

The Vibration Platform can provide the benefits of G-Force movement on the cells of the body in a very short period of time, and with minimal stress on the joints. If we have a sedentary lifestyle our cells will not get the hours of bouncing and pumping movement they need for the body to function up to its potential. For many people the lack of cellular pumping exercise is the missing link in their health and fitness program. If you want to improve your level of health and fitness, G-Force movement can help your body function up to its potential!

Next month we will be talking about the most widely read book in the world. Do you know the name of that book? This book has been the most widely read book in the world for hundreds of years! However, it is an illegal book in 53 countries today. What type of governments would ban this book? Responsible, democratic governments, or violent, dictatorial governments? These are interesting questions. Find out all about it next month in the Rural Route Magazine. Don't miss it! ✨



The above article was written by Philip Legge, who is the founder of Legge Fitness Superstores. Legge Fitness Superstores is located in **Listowel and Fergus Ontario**. For more information, please call 1-800-695-7338 or email [info@leggefittness.com](mailto:info@leggefittness.com). Visit their website [www.leggefittness.com](http://www.leggefittness.com) to view their full line of health and fitness products and services.

## Past Rural Route Articles we've written that are available from Legge Fitness Superstores

**Dec 2014/Jan 2015** - Improving Mental And Emotional Health

**February 2015** - The 4 Pillars Of Building Good Relationships

**March 2015** - Roadblocks To Building Good Relationships

**April 2015** - Completing The Framework For Building Good Relationships

**May 2015** - Cardiovascular Training For Fitness, Health And Youthfulness

**June 2015** - Cardiovascular Training For Fitness, Health And Youthfulness  
- Part 2

**July/August 2015** - Cardiovascular Training For Fitness, Health And Youthfulness - Part 3

**September 2015** - Cardiovascular Training - Review

**October 2015** - Cleansing And Detoxification With An Infrared Sauna

**November 2015** - How Can Hydrotherapy Help Us?

**Dec. 2015/Jan. 2016** - Is Gravity Our Friend?

**February 2016** - Benefits Of Natural Health Care

**March 2016** - Why Does Massage Feel So Good?

**April 2016** - Freedom Through Partnering

**May 2016** - The Family Is A Precious Partnership

**June 2016** - Nutrition - The Complete Picture (Part 1)

**July/August 2016** - Nutrition - The Complete Picture (Part 2)

**September 2016** - Nutrition - The Complete Picture (Part 3)

**October 2016** - A Serious Health Concern

**November 2016** - Health Benefits of Bouncing and... Horse and Buggies?